



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,022	05/16/2001	Guy Barre	TS 5549 US	2253
7590		11/19/2004		
Richard F Lemuth				
Shell Oil Company				
P O Box 2463				
Houston, TX 77252-2463				
			EXAMINER	
			GRIFFIN, WALTER DEAN	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,022

Applicant(s)

BARRE ET AL.

Examiner

Walter D. Griffin

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12 and 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 1, 2004 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 1764

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-11, and 14-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorrington et al. (US 3,894,938) in view of WO 98/01515 to Moureaux.

The Gorrington reference discloses a dewaxing process. The process comprises contacting a sulfur and nitrogen-containing gas oil boiling in the range of 400°F to 900°F with a catalyst in a catalytic dewaxing zone and then passing the product from the dewaxing zone to a desulfurization and denitrogenation zone to produce final product. The feed contains a total sulfur content of at least 0.1 weight percent (1000 ppm) and a nitrogen content of at least 10 ppm and has not been previously hydrotreated. The dewaxing catalyst comprises a ZSM-5 type of zeolite (i.e., an MFI type of zeolite that necessarily has a constraint index within the claimed range), a hydrogen transfer functional component such as nickel, palladium, or platinum, and a matrix such as silica. See column 2, line 39 through column 3, line 34.

The Gorrington reference does not disclose that the feed is obtained by the vacuum distillation of the residue of an atmospheric distillation of a crude petroleum feedstock, does not disclose that the feed is a solvent extracted waxy raffinate, and does not disclose that the ZSM-5 is dealuminated.

The Moureaux reference discloses a dewaxing catalyst that comprises a dealuminated ZSM-5 zeolite, Group VIII metal, and a silica binder. The dealumination of the zeolite can be achieved by methods disclosed in European patent specification 96921992.2 (EP 0832171 B1). These methods include treatment of zeolite and binder extrudates with an aqueous solution of a fluorosilicate salt. See page 9, lines 30-35; page 10, lines 1-3; page 11, lines 9-18 and 30-35;

Art Unit: 1764

page 14, lines 4-31; page 15, lines 17-35; page 16, lines 1-5; page 21, lines 20 and 21; and page 22, lines 1-11.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gorrington by utilizing the claimed feeds because such feeds are chemically and physically similar to the feeds disclosed by Gorrington and therefore would be expected to be effectively treated in the process of Gorrington.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gorrington by utilizing a dealuminated zeolite catalyst such as that disclosed by Moureaux because such a catalyst is effective for the desired reaction of Gorrington.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorrington et al. (US 3,894,938) in view of WO 98/01515 to Moureaux as applied to claim 1 above, and further in view of Ward (US 4,743,354).

None of the previously discussed references discloses the further hydrocracking of the dewaxed products.

The Ward reference discloses the hydrocracking of an effluent from a dewaxing zone. See column 8, lines 28-51.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the teachings of the previously discussed references by hydrocracking the effluent from the dewaxing stage as suggested by Ward because valuable products such as middle distillates will be produced.

Response to Arguments

The argument that there is no motivation to combine the Gorrington and Moureaux references is not persuasive. The dealuminated zeolite catalyst of Moureaux is effective in catalyzing hydrocarbon dewaxing reactions. This is the same reaction as is desired in the process of Gorrington. Therefore, the examiner maintains that one of ordinary skill in the art would substitute the catalyst of Moureaux for the catalyst of Gorrington and would expect that the substitution would result in a process that effectively dewaxes the hydrocarbon feed of Gorrington.

The argument that the claimed feed is not chemically and physically similar to the feeds of Gorrington is not persuasive. The feed of Gorrington is a gas oil as the claimed feed can be (see claim 11). Additionally, the boiling range for the feed of Gorrington is from 204°C to 482°C or any part thereof. Clearly, this boiling range of Gorrington includes fractions that would boil within the range of 300°C to 620°C, which applicant argues is the boiling range for the claimed feed. It is noted, however, that this boiling range is not claimed.

The argument that the Moureaux reference suggests that its dewaxing catalyst would not be effective in the type of process taught by Gorrington is not persuasive. The feed treated in the dewaxing step of Moureaux has a sulfur content of less than 1000 ppm and a nitrogen content of less than 50 ppm. While the feed to the dewaxing step of Moureaux generally has a lower sulfur content than that disclosed by Gorrington, there is essentially no difference in the sulfur contents when one compares the upper sulfur limit of Moureaux with the lower sulfur limit of Gorrington. Therefore, the examiner maintains that one would expect the catalyst of Moureaux to be effective on at least some of the feeds disclosed by Gorrington and that the combination of the references is appropriate.

Art Unit: 1764

Applicants' arguments concerning unexpected results are not persuasive. Such results do not appear to be commensurate in scope with the claimed invention, which is not limited to the specific metals used in the examples.

The argument that the Gorrington, Moureaux, and Ward references cannot be properly combined to obtain the process of claim 12 is not persuasive. The Ward reference is utilized only to show that a dewaxed effluent can be hydrocracked. Because of this, the examiner maintains that one of ordinary skill in the art would be motivated to hydrocrack the effluent from the Gorrington process in order to produce valuable middle distillates.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

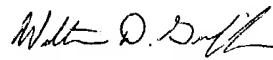
Art Unit: 1764

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Walter D. Griffin
Primary Examiner
Art Unit 1764

WG
November 12, 2004